

| L Number | Hits | Search Text | DB | Time stamp |
|----------|------|--|---|------------------|
| 73 | 5 | ("4786954" "4972248" "5286671" "5298767" "5666833").PN. | USPAT | 2004/10/13 09:54 |
| 74 | 11 | 5401672.URPN. | USPAT | 2004/10/13 09:55 |
| 75 | 2 | ("5492863" "6051450").PN. | USPAT | 2004/10/13 09:56 |
| 76 | 3 | 6238951.URPN. | USPAT | 2004/10/13 09:57 |
| 77 | 9 | ("4769344" "5296408" "5317922" "5335550" "5430421" "5602385" "5610431" "5929728" "6124145").PN. | USPAT | 2004/10/13 09:57 |
| 78 | 2 | ("5578869" "5610431").PN. | USPAT | 2004/10/13 09:58 |
| 79 | 1 | "5740606".PN. | USPAT | 2004/10/13 09:59 |
| 182 | 8 | ("4689113" "5241450" "5366906" "5419806" "5880010" "6255726" "6355501" "6355976").PN. | USPAT | 2004/10/13 10:05 |
| 183 | 30 | (die or wafer or substrate) near3 (edge or periphery or peripheral or outer or outside) near10 (crack or cracking or cracked or corrsion or corroding or corroded or contamination or contaminating) near10 (dice or dicing or singulation or singulating or cleaving or cleavage or cleave or scribe or scribing) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/10/13 10:23 |
| 184 | 346 | (wafer or substrate) near3 (edge or periphery or peripheral or outer or outside) near6 (ring or barrier or wall or spacer) near4 (metal or metallic or solder or tin or copper or cu or gold or au) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/10/13 10:24 |
| 185 | 241 | (wafer or substrate) near3 (edge or periphery or peripheral or outer or outside) near6 (ring or wall or spacer) near4 (metal or metallic or solder or tin or copper or cu or gold or au) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/10/13 10:24 |
| 186 | 267 | (wafer or substrate) near3 (edge or periphery or peripheral or outer or outside) near6 (ring or wall or spacer or ridge or grid) near4 (metal or metallic or solder or tin or copper or cu or gold or au) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/10/13 10:38 |
| 187 | 71 | (wafer or substrate) near3 (edge or periphery or peripheral or outer or outside) near6 (seal) near4 (metal or metallic or solder or tin or copper or cu or gold or au) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/10/13 10:41 |
| 188 | 269 | (wafer or substrate) near3 (edge or periphery or peripheral or outer or outside) near6 (seal\$3) near4 (hermetic\$5) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/10/13 10:42 |
| - | 135 | ((die or wafer or chip) near2 (bond or bonding or attachment or attaching or bonded or attached) or flip adj chip) and (barrier or corrosion or contamination or crack or sealing or seal) near3 (edge or periphery or peripheral or outside or outer) near3 (metal or copper or cu or metallic or aluminum or gold or silver) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/10/13 10:07 |
| - | 8 | ("4689113" "5241450" "5366906" "5419806" "5880010" "6255726" "6355501" "6355976").PN. | USPAT | 2004/07/26 16:04 |
| - | 1173 | ((die or wafer or chip or substrate) near2 (bond or bonding or attachment or attaching or bonded or attached) or flip adj chip) and (barrier or seal or sealing) near3 (edge or periphery or peripheral or outside or outer) near3 (wafer or substrate) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/07/27 10:39 |

| | | | | |
|---|------|--|---|------------------|
| - | 47 | ((die or wafer or chip or substrate) near2 (bond or bonding or attachment or attaching or bonded or attached) or flip adj chip) and (barrier or seal or sealing) near3 (edge or periphery or peripheral or outside or outer) near3 (wafer or substrate) near15 (metal or metallic or copper or cu or gold or au or silver or ag or nickel or ni or aluminum or al) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/07/27 10:52 |
| - | 107 | ((die or wafer or chip or substrate) near2 (bond or bonding or attachment or attaching or bonded or attached) or flip adj chip) and (edge or periphery or peripheral or outside or outer) near3 (raised or elevated or projection or ridge) near10 (metal or metallic or aluminum or al or copper or cu or gold or au or silver or ag or nickel or ni) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/07/27 11:09 |
| - | 4108 | ((die or wafer or chip) near2 (bond or bonding or attachment or attaching or bonded or attached) or flip adj chip) and (seal or sealing or sealed) near2 (hermetic\$5) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/10/06 13:03 |
| - | 709 | ((die or wafer or chip) near2 (bond or bonding or attachment or attaching or bonded or attached) or flip adj chip) and (seal or sealing or sealed) near2 (hermetic\$5) near10 (metal or metallic or copper or cu or gold or au or nickel or ni or platinum or pt) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/10/06 13:08 |
| - | 340 | (wafer near2 (bond or bonding or attachment or attaching or bonded or attached) or flip adj chip) and (seal or sealing or sealed) near2 (hermetic\$5) near10 (metal or metallic or copper or cu or gold or au or nickel or ni or platinum or pt) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/10/06 13:49 |
| - | 287 | flip adj chip same (seal or sealing or sealed) near2 (hermetic\$5) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/10/06 13:50 |
| - | 17 | (US-6306526-\$ or US-6596117-\$ or US-5241450-\$ or US-6697257-\$ or US-6566745-\$ or US-6518096-\$ or US-6373130-\$ or US-6643920-\$).did. or (US-20040014308-\$ or US-20010022207-\$ or US-20040104460-\$ or US-20040066258-\$ or US-20040016995-\$ or US-20040011783-\$ or US-20020113296-\$ or US-20020090754-\$ or US-20030000067-\$).did. | USPAT; US-PGPUB | 2004/10/06 14:49 |
| - | 107 | 438/107.ccls. and (barrier or seal or sealing or pillar or line or spacer) near5 (periphery or peripheral or perimeter or edge or outer or outside) | USPAT; US-PGPUB | 2004/10/06 15:20 |
| - | 1 | 6661085.pn. | USPAT; US-PGPUB | 2004/10/06 14:52 |
| - | 8 | ("4689113" "5241450" "5366906" "5419806" "5880010" "6255726" "6355501" "6355976").PN. | USPAT | 2004/10/06 14:52 |
| - | 140 | 438/107.ccls. and (barrier or seal or sealing or pillar or line or spacer) near5 (periphery or peripheral or perimeter or edge or outer or outside) | USPAT; US-PGPUB | 2004/10/12 11:04 |
| - | 73 | 438/107.ccls. and (hermetic\$5 or peripheral or edge) near2 (seal\$3) | USPAT; US-PGPUB | 2004/10/12 10:50 |
| - | 76 | 438/108.ccls. and (hermetic\$5 or peripheral or edge) near2 (seal\$3) | USPAT; US-PGPUB | 2004/10/12 10:50 |
| - | 182 | 438/108.ccls. and (barrier or seal or sealing or pillar or line or spacer or sealed) near5 (periphery or peripheral or perimeter or edge or outer or outside or hermetic\$5) | USPAT; US-PGPUB | 2004/10/12 11:37 |

| | | | | |
|---|------|---|---|------------------|
| - | 51 | 438/456.ccls. and (barrier or seal or sealing or pillar or line or spacer or sealed) near5 (periphery or peripheral or perimeter or edge or outer or outside or hermetic\$5) | USPAT; US-PGPUB | 2004/10/12 11:48 |
| - | 74 | 438/458.ccls. and (barrier or seal or sealing or pillar or line or spacer or sealed) near5 (periphery or peripheral or perimeter or edge or outer or outside or hermetic\$5) | USPAT; US-PGPUB | 2004/10/12 12:00 |
| - | 126 | 438/460.ccls. and (barrier or seal or sealing or pillar or line or spacer or sealed) near5 (periphery or peripheral or perimeter or edge or outer or outside or hermetic\$5) | USPAT; US-PGPUB | 2004/10/12 12:11 |
| - | 144 | 438/462.ccls. and (barrier or seal or sealing or pillar or line or spacer or sealed) near5 (periphery or peripheral or perimeter or edge or outer or outside or hermetic\$5) | USPAT; US-PGPUB | 2004/10/12 12:18 |
| - | 1305 | (scribe or scribing or cleave or cleaving or singulating or singulation or dice or dicing) near5 (barrier or seal or sealed or sealing) | USPAT; US-PGPUB | 2004/10/12 12:19 |
| - | 82 | (scribe or scribing or cleave or cleaving or singulating or singulation or dice or dicing) near8 (barrier or seal or sealed or sealing) near4 (hermetic\$5) | USPAT; US-PGPUB | 2004/10/12 12:20 |
| - | 27 | (US-6596117-\$ or US-6373130-\$ or US-6306526-\$ or US-5241450-\$ or US-6697257-\$ or US-6566745-\$ or US-6518096-\$ or US-5262351-\$ or US-6643920-\$ or US-6649444-\$ or US-6479320-\$ or US-6455353-\$ or US-6238951-\$ or US-6297072-\$ or US-5401672-\$ or US-6461893-\$).did. or (US-20040014308-\$ or US-20010022207-\$ or US-20040104460-\$ or US-20040066258-\$ or US-20040016995-\$ or US-20040011783-\$ or US-20020113296-\$ or US-20030000067-\$ or US-20020119597-\$ or US-20020106867-\$ or US-20010055856-\$).did. | USPAT; US-PGPUB | 2004/10/12 14:09 |
| - | 571 | (wafer or substrate or chip or device) near3 (edge or periphery or peripheral or scribe or scribing or singulation or singulating or cleave or cleavage or cleaving or dicing) near8 (seal or sealing or guard or barrier or wall or spacer) near3 ring\$2 | USPAT; US-PGPUB | 2004/10/12 14:10 |
| - | 653 | (wafer or substrate or chip or device) near3 (edge or periphery or peripheral or scribe or scribing or singulation or singulating or cleave or cleavage or cleaving or dicing) near8 (seal or sealing or guard or barrier or wall or spacer) near3 ring\$2 | USPAT; US-PGPUB | 2004/10/12 14:11 |
| - | 426 | (wafer or substrate or chip or device) near3 (edge or periphery or peripheral or scribe or scribing or singulation or singulating or cleave or cleavage or cleaving or dicing) near5 (seal or sealing or guard or barrier or wall or spacer) near2 ring\$2 | USPAT; US-PGPUB | 2004/10/12 14:12 |
| - | 6959 | (wafer or substrate) near2 (periphery or edge or peripheral or outer) near6 (barrier or spacer or ring or seal or sealing) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/10/12 17:12 |
| - | 1654 | (wafer or substrate) near2 (periphery or edge or peripheral or outer) near6 (barrier or spacer or ring or seal or sealing) and (wafer or substrate) near3 (stack or stacked or stacking or bonding or bonded or bond or 3d or "3-d" or three near dimensional) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/10/12 17:13 |

| | | | | |
|---|-----|--|---|------------------|
| - | 210 | (wafer or substrate) near (periphery or edge or peripheral or outer) near4 (barrier or spacer or ring or seal or sealing) same (wafer or substrate) near3 (stack or stacked or stacking or bonding or bonded or bond or 3d or "3-d" or three near dimensional) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2004/10/12 17:13 |
|---|-----|--|---|------------------|